Medidata Champions Collaborative Scientific Advancement at ASCO with New Research on Oncology Protocol Optimization and CAR T Efficacy

Leveraging AI, trained on one of the industry's largest clinical trial datasets, Medidata delivers quantifiable evidence to improve breast cancer trial enrollment and evaluate the efficacy of tocilizumab for CAR T-induced CRS

NEW YORK – May 29, 2026 – Medidata, a Dassault Systèmes brand and leading provider of clinical trial solutions to the life sciences industry, will present two poster presentations of pivotal research abstracts at the American Society of Clinical Oncology (ASCO) 2026 Annual Meeting. This research delivers advanced intelligence to accelerate oncology trials by optimizing patient-centric breast cancer protocols and definitively validating tocilizumab's efficacy for CAR T–induced Cytokine Release Syndrome (CRS).

The research (abstracts #11027 and #7027 at booth #30099), conducted by the Medidata Research Alliance, provides valuable insights for oncologists and clinical trial sponsors to refine studies with foresight and strengthen patient outcomes.

"Oncology trials represent some of the most intricate and demanding work in clinical research," said Sheila Diamond, MS, CGC, director, Scientific Engagement, Medidata. "By leveraging decades of clinical research expertise, powered by one of the largest clinical trial datasets in the world, we are delivering the actionable intelligence needed to accelerate cancer breakthroughs. We are transforming trial execution by driving patient-centric protocol design to boost enrollment and, simultaneously, providing definitive clinical validation for treatments of CAR T–induced CRS."

Protocol Optimization in Breast Cancer Clinical Trials

Quantifying the impact of protocol design on enrollment and dropout rates in breast cancer clinical trials. Abstract #11027 (June 1, 2026, 09:00-12:00 CDT timezone)

The analysis by Medidata and Janna Andrews, MD, Chair of Radiation Oncology, Phelps Hospital, Northwell Health, validates a predictive algorithm that quantifies the impact of patient-centric protocol design on enrollment and retention rates in breast cancer trials. The research identified specific procedures that acted as barriers to entry and others that drove retention. Key findings were:

- **10-23% reduction in enrollment rates** associated with the inclusion of Positron Emission Tomography (PET) Imaging in select protocols where PET imaging was considered a key driver of operational outcomes
- **Up to 6% enrollment increases** associated with bone density imaging, abdominal and pelvic imaging, and tumor and biopsy procedures
- **Up to 10% reductions in dropout rates** were seen with the use of blood cell analyses, biomarker testing, and assessment questionnaires overall.

The analysis leverages Medidata Protocol Optimization, part of the Medidata Study Experience, which transforms trial design and execution by leveraging AI trained on proprietary, cross-industry data to evaluate planned protocols against how similar clinical studies have performed, helping sponsors identify and mitigate risks proactively.

“Patient recruitment and retention is one of the greatest obstacles in clinical trials, directly impeding the speed at which patients receive potentially life-changing therapies,” said Janna Andrews, MD, Chair of Radiation Oncology, Phelps Hospital, Northwell Health. “Our joint research with Medidata moves past simply identifying this challenge; it delivers quantifiable evidence that pinpoints the exact burdens and benefits of specific protocol steps. This data is critical for oncologists and sponsors to proactively design patient-centric trials, ensuring better enrollment, retention, and trial continuity.”

Evaluating the Efficacy of Tocilizumab for CAR T–induced Cytokine Release Syndrome

Efficacy of tocilizumab in resolving CAR T–induced Cytokine Release Syndrome: A pooled clinical trial analysis of patients with B-cell lymphoma. Abstract #7027 (June 1, 2026, 09:00-12:00 CDT timezone)

The collaborative study by Medidata, Mayur Narkhede, MD of Mercy Cancer Institute and Sean Patrick Bliven, MD of the University of Alabama, Birmingham, examined data from multinational clinical trials spanning 2,300 patients with B-cell lymphoma on the Medidata Platform. This investigation verifies the effectiveness of tocilizumab for addressing CAR T–induced CRS (Chimeric Antigen Receptor T-cell induced Cytokine Release Syndrome) across a large patient population. This patient population was integrated from multiple multinational trials using AI-powered standardization pipelines. Key observations from the research were:

- **66% of the 680 patients** achieved complete response with a median treatment time of four days
- **34% of patients did not meet** the complete response criteria, highlighting a critical need for alternative rescue therapies to tocilizumab in more persistent cases.

“This research is incredibly valuable in confirming that tocilizumab is a highly effective treatment for the majority of patients experiencing CAR T–induced CRS, although it also reinforces the need for further research into other treatment strategies for those who do not see clinical benefit,” said Mayur Narkhede, MD, oncologist at Mercy Cancer Institute.

“It also demonstrates the power of industry collaborations such as the Medidata Research Alliance to combine knowledge of the treatment landscape and vast, robust historical clinical data sets to generate insights that may not have otherwise been researched,” said Sean Patrick Bliven, MD, oncologist at University of Alabama, Birmingham.

The Medidata Research Alliance

Launched in 2023, the Medidata Research Alliance is a consortium that brings together leading clinician researchers and key opinion leaders from academia, non-profit organizations, and the life sciences industry to leverage Medidata’s expertise in AI and clinical trial data to drive cutting-edge research into innovative treatments. Please visit Medidata AI to learn more, information about the Medidata Experiences is available here.

About Medidata

Medidata is powering smarter treatments and healthier people through digital solutions to support clinical trials. Celebrating over 25 years of ground-breaking technological innovation across more than 38,000 trials and 12 million patients, Medidata offers industry-leading expertise, analytics-powered insights, and one of the largest clinical trial data sets in the industry. More than 1 million registered users across approximately 2,300 customers trust Medidata's seamless, end-to-end platform to improve patient experiences, accelerate clinical breakthroughs, and bring therapies to market faster. A Dassault Systèmes brand (Euronext Paris: FR0014003TT8, DSY.PA), Medidata is headquartered in New York City and has been recognized as a Leader by Everest Group and IDC. Discover more at www.medidata.com. Listen to our latest podcast, *from Dreamers to Disruptors*, and follow us at @Medidata.

About Dassault Systèmes

Dassault Systèmes is a catalyst for human progress. Since 1981, the company has pioneered virtual worlds to improve real life for consumers, patients and citizens. Through the 3DEXPERIENCE platform, AI-powered, science-based virtual twins help 390,000 customers of all sizes, in all industries, collaborate, imagine and create sustainable innovations that drive meaningful impact. For more information, visit: www.3ds.com.

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